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REMARKS / ARGUMENTS

The claims stand restricted as follows:

- I. Claims 1-18, allegedly drawn to a method for calculating duration of a representative cardiac cycle using ECG waveform data, classified in class 600, subclass 428.
- II. Claims 19-22, allegedly drawn to a method for associating ECG waveform data with image data generated by an imaging system using a data synchronization scheme, classified in class 378, subclass 8.
- III. Claims 23-36, allegedly drawn to a method to improve cardiac image quality in the presence of arrhythmias during medical imaging with a scanning medical imaging system, classified in class 600, subclass 425.

The Examiner remarks that Groups I and II are distinct and unrelated because they cannot be used together and they have different designs, modes of operation, and effects. Referencing MPEP §802.01 and §806.06. Paper 031606, page 4.

In respectful disagreement with the Examiner, Applicant submits that not only are Groups I and II related in subject matter, but also that Groups I and II are related as subcombination and combination.

Claim 1 of Group I recites, inter alia,
"generating the ECG waveform...
evaluating said ECG data...
detecting QRS complexes...
analyzing underlying cardiac rhythm...
selecting an even number N...
computing an RR interval...
calculating duration of the representative cardiac cycle..."

Claim 19 of Group II recites, inter alia,
"generates the ECG waveform...
evaluates said ECG data...
detects QRS complexes...
analyzes underlying cardiac rhythm...
selects an even number N..."

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computes an RR interval...

calculates duration of the representative cardiac cycle..."

From the foregoing, it can be seen that the inventions of Groups I and II are related, as they recite related subject matter. Also from the foregoing, it can be seen that the inventions of Groups I and II are related as subcombination and combination, as Group II requires all of the particulars of Group I for patentability.

In alleging unrelated subject matter between Groups I and II, it appears that the Examiner looks only to the preamble language. However, as can be seen from the foregoing, the body of the claim shows a different relationship.

Where a combination cannot be practiced separate from the claimed subcombination, there is no "two-way distinctiveness" (MPEP §806.05(c)). As such, and with respect to Groups I and II, Applicant submits that the Restriction Requirement between Groups I and II is improper.

In addition to the foregoing, Applicant submits that the Restriction Requirement between Groups I and III is improper for the following reasons.

If the search and examination of an entire application can be made *without serious burden*, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions. MPEP 803. (Emphasis added).

The Examiner alleges that Groups I and III are related as combination and subcombination, where the combination does not require the particulars of the subcombination for patentability. Additionally, the Examiner remarks that Group I is classified in class 600, subclass 428, and that Group III is classified in class 600, subclass 425.

In view of Groups I and III both being classified in class 600, albeit different subclasses, Applicant submits that a search and examination of the entire application, at least with respect to Groups I and III, may be made without serious burden, since the material of class 600, subclass 428, is related to the material of class 600, subclass 425.

Accordingly, and with respect to Groups I and III, Applicant submits that restriction of Groups I and III for examination purposes is improper.

For at least these reasons, the Restriction Requirement dated March 23, 2006, is wholeheartedly traversed, removal of the Requirement, at least with respect to the improper

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groupings noted above, and rejoining of Groups I and II, Groups I and III, or Groups I, II and III, is respectfully requested. As always, the Examiner is cordially invited to contact the undersigned by telephone to resolve any issues that remain.

In the event that the Examiner maintains the restriction requirement between Groups I and III, Applicant understands that an examination of Group I will not include a search of class 600, subclass 425 (classification of Group III). If the Examiner deems it appropriate to search class 600, subclass 425, in connection with the examination of Group I, then Applicant respectfully requests rejoinder of Group III, as the burden on the Examiner would have been removed at the Examiner's own initiative.

Consideration and allowance of these claims are respectfully requested. The foregoing is believed to be fully responsive to this office action.

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 07-0845.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above identified Deposit Account.

Respectfully submitted,

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